

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 18

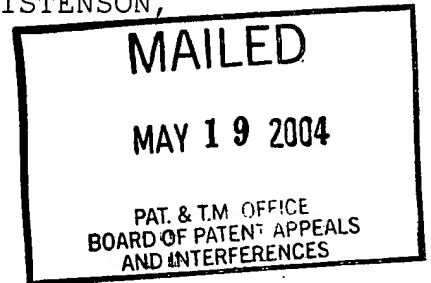
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KENNETH R. LABOUNTY, ROSS D. CHRISTENSON,
and DANIEL P. JACOBSON

Appeal No. 2003-0510
Application No. 09/524,904

ON BRIEF



Before ABRAMS, STAAB, and NASE, Administrative Patent Judges.
STAAB, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1-12, 14-17, 19 and 20, all the claims currently pending in the application.

Appellants' invention pertains to a heavy duty demolition apparatus having a replaceable tip. An understanding of the invention can be derived from a reading of exemplary claim 1, which appears in the appendix to appellants' main brief.

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The references of record relied upon by the examiner in the final rejection as evidence of obviousness are:

Sederberg et al. (Sederberg)	5,992,023	Nov. 30, 1999 (filed Jul. 31, 1998)
Ramun	6,202,308	Mar. 20, 2001 (filed Jul. 6, 1999)

Claims 1-12, 14-17, 19 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sederberg in view of Ramun.¹

Reference is made to appellants' main and reply briefs (Paper Nos. 13 and 15) and to the examiner's answer (Paper No. 14) for the respective positions of appellants and the examiner regarding the merits of this rejection.

Discussion

I. Claim Grouping

Appellants indicate on page 3 of the main brief that claim 17 should be considered separately from the remainder of the appealed claims and has presented arguments specifically directed to claim 17. Accordingly, claim 17 shall stand or fall alone. As to the remainder of the appealed claims, appellants have argued the patentability of these claims without regard to any

¹As aptly noted by the examiner on page 5 of the answer, claim 7 is written as two sentences. This informality is deserving of correction upon return of the application to the Technology Center.

particular claim. Therefore, claims 1-12, 14-16, 19 and 20 shall stand or fall together in accordance with the success or failure of the arguments directed thereto. See *In re Hellsund*, 474 F.2d 1307, 1309-10, 177 USPQ 170, 172 (CCPA 1973); *In re Wood*, 582 F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978); and *In re Nielson*, 816 F.2d 1567, 1572, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987).

II. Claims 1-12, 14-16, 19 and 20

Representative claim 1 calls for, among other things, an *indexable rotatable* cross blade (appellants' element 60) removably mounted to the inside of the tie plate (appellants' element 56) substantially transverse to the lower shear blade and to the guide blade, the cross blade having four cutting surfaces *for successive exposure and shearing*.

In rejecting claim 1 as being unpatentable over Sederberg in view of Ramun, the examiner found (answer, page 3) that Sederberg discloses a heavy-duty demolition apparatus comprising a lower jaw 14 and an upper jaw 16 and pivot means 18 interconnecting the jaws, the lower jaw having shearing blades 64, 66 and the upper jaw having shearing blades 114, 116, the lower jaw also having a rigid guide blade 34, a tie plate 90 securing the outer ends of the lower shear blade and the guide blade together, an open slot 92 between the lower shear blade and the guide plate to receive

the upper shear blade therein, and a cross cutter blade (element 94 in Figures 6 and 11) removably mounted to the inside of the tie plate, all as set forth in appellants' claims. The examiner further found (answer, pages 3-4) that the cross cutter blade of Sederberg is "rotatable," but that it is not necessarily "indexable" as set forth in claim 1. To account for this alleged deficiency, the examiner turned to Ramun.

Ramun discloses a heavy duty shear comprising a fixed lower blade 34 and a movable upper blade 38. Of particular interest to the examiner are Ramun's shearing blade inserts 10. According to Ramun (column 4, lines 31-40):

The movable blade **38** includes a plurality of *reversible, indexable* blade inserts **10** positioned along a side edge thereof. The blade inserts **10** are *removably attached* to the movable blade **38** as will be described hereinafter. Each of the blade inserts **10** includes a *plurality of cutting edges* along the side edges thereof. When one of the respective cutting edges of a blade insert **10** is worn down, a new cutting edge can be presented *by indexing or reversing* the blade insert **10** to present the new cutting edge in the operative position. [Emphasis added.]

Ramun describes a similar set of reversible, indexable blade inserts 10 for the lower blade 34 (column 4, lines 41-52).

Based on the above reference teachings, the examiner concluded (answer, page 3) that it would have been obvious to one of ordinary skill in the art to provide the "various blades" of

Sederberg with "indexable" blades to extend the useful lives of the blades, and thereby arrive at the subject matter of claim 1. As further explained by the examiner in the "**Response to Argument**" section on page 4 of the answer:

Both blades of Sederberg and Ramun are rotatable and comparable, and accordingly, there is clear motivation to combine the "rotatable" blade of Sederberg with the "indexable" blade of Ramun. Moreover, the Examiner takes the position that the rotatable blade of Sederberg can be considered "indexable" and the combination of Ramun is cited in the rejection because the Appellant [sic, Appellants] differentiate the two terms in his [sic, their] disclosure and Sederberg does not use the term "indexable" in his disclosure.

The examiner's position is well taken. First, we are in accord with the examiner's position to the effect that one of ordinary skill in the art would have reasonably inferred from the disclosure of Sederberg that the cross cutter blade 94 thereof may be rotated and/or reversed so as to bring any one of the four (4) long edges of the blade into a position where it would function as the principal cutting edge of the cross cutter blade.² In this regard, Figures 6 and 11 of Sederberg illustrate

²In evaluating the teachings of the applied references, it is proper to take into account not only the specific teachings of each reference, but also the inferences which one skilled in the art would reasonably have been expected to draw from the disclosure. See *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

cross cutter blade 94 as being rectangular in shape whereby the blade may be rotated about axes that are parallel to either the long or short edges of the blade to bring any one of four (4) long edges of the blade into an operative cutting position. Further, this manner of operation is consistent and in keeping with the statement appearing in the paragraph spanning columns 7 and 8 of Sederberg which states that the cutter blades of the invention may be rotated to enable use of *all four longitudinal edges* of the blade as the principal cutting edge. In our opinion, progressive "end over end" and/or "reversible" rotation of Sederberg's cross cutter blade 94 would satisfy the rather broadly worded requirement of the last paragraph of claim 1 that the cross blade is "indexable" and "rotatable" such that four cutting surfaces of the blade are presented for "successive" exposure and shearing.

Second, to the extent progressive "end over end" and/or "reversible" rotation of Sederberg's cross cutting blade 94 would not satisfy the "indexable" "rotatable" and "successive" language of the last paragraph of claim 1, we agree with the examiner's implicit position to the effect that it would have been obvious in view of the teachings of Ramun to modify the cross cutter blade of Sederberg and its receiving recess 92 (such as by making

both the blade and the recess square in plan view) so that the blade may be rotated about an axis perpendicular to one of its major faces to bring successive adjacent cutting edges into an operative cutting position. In this matter, note that Ramun discloses that the reversible, indexable cutter blade inserts 10 having multiple cutting edges may be either rectangular, square, or rhombus in shape (column 4, lines 31-52).

Appellants' arguments in the main and reply briefs have been considered. At the outset, we simply disagree with the argument in the third full paragraph on page 4 of the reply brief that appellants' specification provides a definition for the term "successive" appearing in the claims. As we see it, the section of appellants' specification quoted on page 4 of the reply brief merely provides an *example* of what may constitute "successive" exposure of a plurality of cutting surfaces. The argument in the second full paragraph on page 4 of the reply brief that Sederberg's rectangular cross blade does not allow for "successive" exposure of four edges for shearing is not persuasive because it is based on an unreasonably narrow interpretation of the scope of the "indexable" "rotatable" and "successive" language of the claims. In this regard, we do not consider that the claims require the cross blade to be rotatable

about an axis perpendicular to one of the blade's major faces to successively bring a new cutting edge into an operative position.³ The argument in the first full paragraph on page 4 of the reply brief that rotating the cross cutter blade 94 of Sederberg to expose the two short sides of the blade would clearly be unworkable also appears to be founded on appellants' unreasonably narrow interpretation of the scope of the "indexable" "rotatable" and "successive" language of the claims. Moreover, the ordinarily skilled artisan would not operate Sederberg in this manner.⁴

In light of the above, we shall sustain the standing 35 U.S.C. § 103(a) rejection of claim 1 as being unpatentable over Sederberg in view of Ramun. We also shall sustain the standing 35 U.S.C. § 103(a) rejection of claims 2-12, 14-16, 19

³In this regard, note page 7, lines 11-13, of appellants' specification, where the elongated lower shear blades 36 and 37 are rotated and flipped around "to successively bring each of the four cutting surfaces into position for shearing" (emphasis added). Thus, based on appellants' original disclosure, "successive" exposure of cutting edges does not preclude the sort of manipulation that would be required to bring the four long cutting edges of Sederberg's rectangular cross cutting blade into operative position.

⁴To conclude otherwise would require the presumption of stupidity rather than skill on the part of the ordinarily skilled artisan. See *In re Sovish*, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985)

and 20 as being unpatentable over Sederberg in view of Ramun since, as noted above, appellants have not separately argued the patentability of these claims with any reasonable degree of specificity.

III. Claim 17

Claim 17 differs from the applied prior art in that it calls for the cross blade and the tie plate to form therebetween a first angle between one and thirty degrees. This is illustrated in appellants' Figure 3 where the major faces of the cross blade 60 form an angle α with the inner surface 56b of the tie plate, and is described in the paragraph spanning pages 6-7 of the specification where the benefits of this arrangement are explained. In rejecting claim 17, the examiner has (1) taken the position (answer, pages 3-4) that the shim 96 of Sederberg can be used to adjust the angle between the tie plate and the cross blade, (2) cited *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955) for the principle that "it is not inventive to discover the optimum or workable ranges by routine experimentation when general conditions are disclosed in the prior art" (answer, pages 3-4), and (3) urged that appellants have merely used routine

skill to discover the optimum or workable range of the angle between the cross blade and the tie plate. Based on the above, the examiner concluded that claim 17 is not patentable. We do not agree.

First, we are apprised of nothing in Sederberg that teaches, suggests or implies that the shim 96 is used for the purpose of adjusting the angle between the cross blade and the tie plate, notwithstanding the examiner's apparent position to the contrary. Second, even if Sederberg did teach that the cross blade may be situated at an angle to the tie plate, the principle of discovering the optimum value of a variable does not apply where the parameter optimized is not recognized in the art as being a result-effective variable. *In re Antoine*, 559 F.2d 618, 621, 195 USPQ 6, 8-9 (CCPA 1977). Thus, "routine experimentation" does not defeat patentability unless it comes within the teachings of the art. *In re Fay*, 347 F.2d 597, 602, 146 USPQ 47, 51 (CCPA 1965). In the present case, assuming for the sake of argument that Sederberg intended to arrange the cross plate 94 at an angle relative to tie plate 90, variation of that angle cannot be said to have been an obvious matter of "routine experimentation" because neither Sederberg nor Ramun teaches or suggests that such

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angle is a result-effective variable. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). As a consequence, one of ordinary skill following the teachings of the applied references would not have been led to vary the angle in order to determine an optimum range of values therefor. Cf. *In re Huang*, 100 F.3d 135, 139, 40 USPQ2d 1685, 1689-90 (Fed. Cir. 1996) (since prior art taught that polyurethane layer absorbs shock, obvious to experiment to obtain the optimum range of thickness for shock absorption).

Therefore, we shall not sustain the standing rejection of claim 17 as being unpatentable over Sederberg in view of Ramun.

Conclusion

The standing rejection of claims 1-12, 14-17, 19 and 20 under 35 U.S.C. § 103(a) is affirmed as to claims 1-12, 14-16, 19 and 20, but is reversed as to claim 17.

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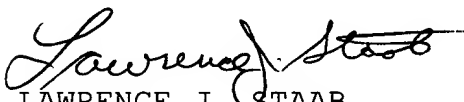
The decision of the examiner is affirmed-in-part.

No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED-IN-PART



NEAL E. ABRAMS)
Administrative Patent Judge)



LAWRENCE J. STAAB)
Administrative Patent Judge)

BOARD OF PATENT
APPEALS AND
INTERFERENCES



JEFFREY V. NASE)
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